IN THE CLAIMS:

Please amend the claims as follows:

1-42. (cancelled)

43. (new) A device for measuring electrical energy in an electric circuit, said device comprising:

at least one sensor coupled with said electric circuit and operative to sense at least one electrical parameter in said electric circuit and generate at least one analog signal indicative thereof;

at least one analog to digital converter coupled with said at least one sensor and operative to convert said at least one analog signal to at least one digital sample;

a time synchronization receiver operative to generate a time synchronization signal; and

a processor coupled with said at least one analog to digital converter and said time synchronization receiver, said processor operative to alter a timing clock signal based on said time synchronization signal.

44. (new) The device of claim 43 further comprising a local synchronization circuit coupled with said processor which outputs said timing clock signal to said processor.

45. (new) The device of claim 43, wherein said time synchronization receiver is further coupled with a communications network.

46. (new) The device of claim 45, wherein said time synchronization receiver is operative to transmit said time synchronization signal onto said communications network.

47. (new) The device of claim 43, wherein said time synchronization signal comprises a network time signal.

48. (new) The device of claim 43, wherein said time synchronization signal comprises an external time synchronization signal generated externally to said device.

49. (new) The device of claim 43, wherein said time synchronization receiver comprises a GPS receiver operative to receive a GPS signal.

50. (new) The device of claim 49, wherein said GPS receiver is operative to wirelessly receive said GPS signal.

51. (new) The device of claim 43, wherein said device is an energy meter.

52. (new) The device of claim 43, wherein said device is a phasor transducer.

53. (new) The device of claim 43, wherein said processor is further operative to timestamp data based on said time synchronization signal.

54. (new) A system for measuring the delivery of electrical energy from an energy supplier to a consumer through an electric circuit, said system comprising:

a digital network;

at least one device coupled with said digital network, said devices comprising:

at least one sensor coupled with said electric circuit and operative to sense at least one electrical parameter in said electric circuit and generate at least one analog signal indicative thereof;

at least one analog to digital converter coupled with said at least one sensor and operative to convert said at least one analog signal to at least one digital sample;

a time synchronization receiver operative to generate a time synchronization signal; and

a processor coupled with said at least one analog to digital converter and said time synchronization receiver, said processor operative to alter a timing clock signal based on said time synchronization signal.

55. (new) The system of claim 54, wherein said processor is further operative to timestamp said at least one digital sample based on said time synchronization signal.

56. (new) The system of claim 54, wherein said processor is further operative to transmit said altered timing clock signal onto said digital network.

57. (new) The system of claim 56, wherein said processor is operative to perform a function on said timestamped at least one digital sample.

58. (new) The system of claim 56, wherein said time synchronization receiver comprises a GPS receiver operative to receive a GPS signal.

59. (new) The system of claim 58, wherein said GPS receiver is operative to wirelessly receive said GPS signal.

60. (new) A method for measuring electrical energy in an electric circuit, said method comprising:

(a) sensing at least one electrical parameter in said electric circuit and generating at least one analog signal indicative thereof;

(b) converting said at least one analog signal to at least one digital sample;

(c) generating a time synchronization signal; and

(d) altering a timing clock signal of said at least one digital sample based on said time synchronization signal.

61. (new) The method of claim 60 further comprising timestamping said at least one digital sample based on said time synchronization signal.

62. (new) The method of claim 60 further comprising transmitting said time synchronization signal onto a communications network.

63. (new) The method of claim 60 wherein c) further comprises communicating with an external time synchronization device.

64. (new) A device for measuring electrical energy in an electric circuit, said device comprising:

sensing means for sensing at least one electrical parameter in said electric circuit and generate at least one analog signal indicative thereof;

converting means for converting said at least one analog signal to at least one digital sample;

synchronization means for generating a time synchronization signal; and

processing means for altering a timing clock signal based on said time synchronization signal.